



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,804	10/01/2003	Mitsuhiko Sato	CANO:91	3089
ROSSI & ASSOCIATES P.O. Box 826 Ashburn, VA 20146-0826			EXAMINER PHAM, HAI CHI	
			ART UNIT 2861	PAPER NUMBER

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/676,804	Applicant(s) SATO ET AL.	
	Examiner Hai C. Pham	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 are 8-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Okuno et al. (U.S. 5,933,687).

Okuno et al. discloses a full color image forming apparatus comprising a plurality of image forming units (exposure units 17C to 17K, Fig. 2) that form images and overlap the formed images onto a transfer material (intermediate transfer belt 31), a plurality of scanners (e.g., respective light sources 18C to 18K and optical scanners 19C to 19K) that form images in said plurality of image forming units respectively, a first controller that has a first mode (full-color mode) in which image formation is carried out by said plurality of image forming units (all color components including the black component being operative), and a second mode (monochrome mode) in which image formation is carried out by at least one of said image forming units (only black component being operative), said first controller starting a preparation for the image formation in the first mode while the image formation is being carried out in the second mode (while in monochrome mode, the phase alignment routine for aligning the phase of the respective photosensitive drums 41C to 41Y is executed), and a second controller that carries out

the image formation in the first mode after the image formation in the second mode is completed (once the image forming operation in the monochrome mode is completed, the full-color mode can readily start by simply engaging the clutch 53).

Okuno et al. further teaches:

- wherein the image formation in the second mode (monochrome mode) is monochromatic image formation, and the image formation in the first mode (full-color mode) is image formation in a plurality of colors,
- wherein said first controller starts a preparation for applying high voltage (e.g., activating the motor driving the photosensitive drums 41C to 41Y to execute the phase alignment routine) to at least one of said image forming units that is not being used for the image formation in the second mode,
- wherein said first controller starts to drive at least one of said scanners that is not being used for the image formation in the second mode (e.g., driving the photosensitive drums 41C to 41Y).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuno et al. in view of Ohki (U.S. 6,408,145).

Okuno et al. discloses all the basic limitations of the claimed invention except for the second controller synchronizes said plurality of scanners after the image formation in the second mode is completed.

Ohki discloses an image forming apparatus including charger applied with voltage changed between monochrome mode and full-color mode, wherein the full-color mode operation is carried out in predetermined synchronous relation between the four color image forming stations such that the toner images formed in the image forming stations are successfully transferred onto the surface of the transfer material P in a superimposed manner (col. 10, lines 4-10).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the full-colored image by synchronizing the plural image forming units in Okuno et al. device as taught by Ohki. The motivation for doing so would have been to prevent the misalignment of the plural toner images so as to provide a high quality image on the transfer material.

Response to Arguments

5. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new grounds of rejection as presented in this Office action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM
PRIMARY EXAMINER
December 24, 2005